PTO/SB/08A/B (10-96)
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Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A and B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 2

Complete if Known	
Application Number	
Filing Date	
First Named Inventor	
Group Art Unit	
Examiner Name	
Attorney Docket Number	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T[2]
	1	International Energy Agency Hydrogen Implementing Agreement; Summary of Task Workshop, Marck 13, 1997, Alexandria, Virginia, USA; Task 12 - Metal Hydrides for Hydrogen Storage.	
		Semiannual Report to the Executive Committee of the IEA Agreement on the Production and Utilization of Hydrogen submitted April 30, 1997 for meeting of June 4-5, 1997.	
		International Energy Agency Hydrogen Implementing Agreement Summary of Task Workshop, July 14, 1997 - Henniker, New Hampshire, USA; Task 12 - Metal Hydrides for Hydrogen Storage.	
		Poster List: Gordon Research Conference on Hydrogen-metal Systems, New England College Henniker, New Hampshire, July 13-18, 1997.	
		1997 Annual Report IEA Agreement on the Production and Utilization of Hydrogen; Mechanical Destabilization of Light Metal Hydrides, Project No. 8, A. Zaluska, L. Zaluski and J. O. Strom-Olsen, McGill University, Montreal, Canada.	

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] Applicant is to place a check mark here if English language Translation is attached..

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U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	U.S. Patent Document Number	Kind Code[2] (*if known*)	Name of Patentee or Applicant Of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Office[3]	Number[4]	Kind Code[5] (*if known*)	Name of Patentee or Applicant Of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T[6]

Examiner Signature		Date Considered	

*EXAMINER; Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] See attached Kinds of U.S. Patent Documents. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

File 1770-244 Montreal, Canada

IN THE UNITED STATES PATENT AND TRADEMARKS OFFICE

Applicants:	Sabin BOILY, Jacques HUOT, Guy LALANDS, Guoxiang LIANG, Andre VAN NESTE and Robert SCHULZ
For:	Activated Interface Nanocomposites Prepared by Mechanical Grinding of Magnesium Hydrides and Their Use for Hydrogen Storage
S.N.:	(Unknown) 09/529,910
Filed:	(Unknown) 6/20/2000
Assignee:	(Probable) Hydro-Quebec
Counterpart Applications:	WO 99/20422; CA 2,217,095; EP 102,491; CN 1280527; BR 9812984

Exr. Ip 1742

The Assistant Commissioner of Patents
Washington, D.C. 20231
USA

Attention: Office of Petitions,
Crystal Park 1
Room 520

TRANSMITTAL OF PROTEST UNDER 37 C.F.R. 1.291

Sir:

Transmitted here is a Protest relative to and which is believed to have been filed corresponding to Canadian Application 2,217,095 and International Application PCT/CA 98/00987, published as WO 99/20422.

The Assisstant Commissioner for Patents

Accompanying this Transmittal are the following:

1. Protest under 37 C.F.R. 1.291.
2. PTO Form 1449 listing prior art.
3. Cover page of published Canadian Application 2,217,095, the Canadian counterpart of the US Application under Protest.
4. Cover page of published International Application WO 99/20422, the International counterpart of the US Application under Protest and which International Application designates US.
5. Entry from Delphion Database with respect to WO 99/20422 listing the counterpart Applications including EP 1024918; CN 128052; CA 2,217,095 and BR 9812984.

The specifics of the Protest are contained in the Protest paper attached hereto.

We hereby certify that a complete copy of this Protest with enclosures was served on this date by Registered Mail to Applicant as follows -

Dr. Robert Schulz IREQ	Mr. Marc Hubert Hydro-Québec
1800, boul. Lionel-Boulet	75, boul. René-Lévesque ouest, 22e étage
Varennes, Québec J3X 1S1	Montréal, Québec H2Z 1A4
Canada	Canada

The Applicant has previously been advised by the undersigned of the prior publications and the filing of a counterpart Protest of the Canadian Application CA 2,096,884.

The Assisstant Commissioner for Patents

A duplicate copy of the Protest and publications is included.

Confirmation of receipt of these papers is requested for which purpose an addressed postcard is attached for endorsement and return.

Respectfully submitted,

Alicja Zaluska
Date: June 6, 2001

Leszek Zaluski
Date: June 6, 2001

John O. Strom-Olsen
Date: June 6, 2001

File 1770-244 Montreal, Canada

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Sabin BOILY, Jacques HUOT, Guy LALANDS, Guoxiang LIANG, Andre VAN NESTE and Robert SCHULZ
For:	Activated Interface Nanocomposites Prepared by Mechanical Grinding of Magnesium Hydrides and Their Use for Hydrogen Storage
S.N.:	(Unknown)
Filed:	(Unknown)
Assignee:	(Probable) Hydro-Quebec
Counterpart Applications:	WO 99/20422; CA 2,217,095; EP 102,491; CN 1280527; BR 9812984

The Assistant Commissioner of Patents
Washington, D.C. 20231
USA

Attention: Office of Petitions
Crystal park 1
Room 520

PROTEST UNDER 37 C.F.R. 1.291

Sir:

We, Alicja Zaluska, Leszek Zaluski and John O Strom-Olsen all associated with McGill University, Montreal, Canada, hereby protest the issue of a Patent on the US Application which we understand has been filed corresponding to Canadian Application 2,217,095.

The Assistant Commissioner for Patents

A corresponding Protest has been filed in the Canadian Application and the Applicant is aware of the content of such Protest.

The following comments are made with respect to CA 2,217,095 but apply equally to the counterpart US Application and other counterpart Applications.

The invention described in CA 2,217,095 involves mixing magnesium hydride or hydride of magnesium-based compound with another hydride or element and ball-mixing the mixture.

It is alleged that the procedure results in a significant improvement in the properties of the resulting hydride, in particular, hydrogen desorption.

Essentially the same process was developed and described by us prior to October 22, 1997, as part of our work program for improving hydrogenation/dehydrogenation properties of magnesium-based hydrides at McGill University.

In September 1996, more than 12 months before the filing of the above application, our study became the subject of an International Project funded by the Canadian Government within the framework of International Energy Agency-IEA-(Hydrogen Implementing Agreement, Task 12). This project involved McGill University, University of Stockholm in Sweden and the Institute of Energy Technology in Norway and was entitled "Mechanical Destabilization of Metal Hydrides". This project was directed towards improving hydrogen storage properties of hydrides through ball-milling **previously hydrogenated** compounds of magnesium and their

mixtures (in contrast to the more conventional procedure of ball-milling the **unhydrogenated** materials).

The results obtained within this project were presented and widely discussed during semi-annual IEA Workshops, and reports of these workshops were distributed in all countries participating in the IEA as open literature.

The following documents resulted from the work all representing disclosure prior to October 22, 1997:

1- International Energy Agency Hydrogen Implementing Agreement; Summary of Task Workshop, March 13, 1997 – Alexandria, Virginia, USA; Task 12 – Metal Hydrides for Hydrogen Storage.

2- Semiannual Report to the Executive Committee of the IEA Agreement on the Production and Utilization of Hydrogen submitted April 30, 1997 for meeting of June 4-5, 1997.

3- International Energy Agency Hydrogen Implementing Agreement; Summary of Task Workshop, July 14, 1997 – Henniker, New Hampshire, USA; Task 12 – Metal Hydrides for Hydrogen Storage.

4- Poster List; Gordon Research Conference on Hydrogen-Metal Systems, New England College Henniker, New Hampshire, July 13-18, 1997.

5- 1997 Annual Report IEA Agreement on the Production and Utilization of Hydrogen; Mechanical Destabilization of Light Metal Hydrides, Project No. 8, A. Zaluska, L. Zaluski and J.O. Ström-Olsen, McGill University, Montreal, Canada.

The Assistant Commissioner for Patents

The above documents all contain reports of the progress in studies of the ball milling of mixtures of MgH_2 and Mg_2NiH_4 and the benefits achieved in the resulting material.

These studies outlined in the disclosures above ultimately resulted in a publication of our work in the Journal of Alloys and Compounds 289 (1999), 197-206, a copy of which is attached. This latter document has a publication date subsequent to October 22, 1997, but is presented simply to show the combination of studies.

The invention described in CA 2,217,095, includes within its scope grinding magnesium or magnesium hydride with an element or compound, or hydride of such element or compound, which absorbs hydrogen but is "hardly miscible" when ground with magnesium or its hydride.

The documents identified above describe grinding of magnesium hydride with magnesium-nickel hydride. Magnesium-nickel hydride is a material known to absorb hydrogen and to be "hardly miscible when ground with magnesium or its hydride".

In this regard it is noted that claim 9 of the Canadian application which specifically refers to claim 1 expressly mentions magnesium-nickel as a choice for the compound " or hydride thereof" to be ground with magnesium hydride, and which is "hardly miscible" when ground with magnesium hydride.

The aforementioned disclosures thus anticipate the invention described in CA 2, 217,095.

The Assistant Commissioner for Patents

CA 2,217,095 describes alternative materials to magnesium-nickel or magnesium-nickel hydride as the second component, however these alternative materials are an obvious extension from our disclosures involving magnesium hydride with magnesium-nickel hydride.

Additionally, it can be seen that among the participants in the conferences identified in document 4 above, were S. Boily and R. Schultz, both identified as inventors in CA 2,217,095, as well as other representatives indicated as being associated with an arm of the Applicant identified in CA 2, 217,095, namely Hydro-Québec, and thus, that prior to the filing of their patent application persons named as inventors in CA 2,217,095 were aware of the earlier disclosures which we made of the same invention, including the disclosure at the Gordon Research Conference on Hydrogen-Metal Systems, in July 1997.

The persons named in CA 2,217,095 are not the inventors of the subject matter identified in CA 2,217,095, this subject matter having been previously disclosed by us or obvious from disclosures previously made by us.

Our disclosure thus represent a bar to a US Application corresponding to CA 2,217,095 and in addition the subject matter of such US Application in so far as it is not expressly described in our disclosures above is obvious in view of the information disclosed by us in such publications.

It is requested that the afore-mentioned disclosures and the subject matter described therein, of which we are the Inventors, be considered and the US Application corresponding to CA 2,217,095 refused.

The Assistant Commissioner for Patents

Please direct any correspondence and confirmation of entry of this prior art and Protest to

Mr. Saverio Morielli
McGill University
Office of Technology Transfer
3550 University Street
Montreal, Quebec
H3A 2A7

Alicja Zaluska
Date: June 6, 2001

Leszek Zaluski
Date: June 6, 2001

John O. Strom-Olsen
Date: June 6, 2001